

35 U.S.C. § 112 Rejection

Claim 5 is rejected under 35 U.S.C. § 112, second paragraph, as having insufficient antecedent basis. Applicant has amended Claim 1 to include the limitations of Claim 2. Accordingly, Applicant submits that Claim 5 now has proper antecedent basis. Withdrawal of the rejection is therefore respectfully requested.

35 USC § 103 Rejection

The Examiner rejects Claims 1 under 35 USC §103 as being unpatentable over Meglio et al. (U.S. Patent 5,877,583) in view of U.S. Patent No.4,755,868 to Meglio and Claims 2-4 over Meglio and Hodges in further view of U.S. Patent No. 5,485,890 to Cawthorne. The Examiner states that, with respect to Claim 2, the Meglio reference discloses a cooling system for a CRT, but doesn't specify how it is attached to the front surface of the CRT panel. Applicant respectfully traverses this rejection.

Applicant has amended Claim 1 to include the limitations of Claim 2. The amended language recites that the panel is mounted on the cooling system with a sealing member in between, and only the portion of the panel contacting the sealing member is polished. This corresponds to how the cooling system is attached to the panel. This language is in addition to the remainder of Claim 1, which recites that the panel is inwardly curved and has a uniform thickness. As disclosed on page 3 of the specification, the uniform thickness acts to unify the cooling rate across the panel. Also, the curved surface of the panel allows only a portion of the panel to be polished for sealing, contrary to the prior art which needs to polish most of the surface due to the relatively flat characteristics of the panel. See page 5 of the specification.

Contrary to the Examiner's assertions, none of the cited references teaches the combination of polishing only a portion of the panel and providing a panel having a uniform thickness. Hodges, which the Examiner cites to for uniform thickness across a panel, does not disclose a cooling system. Accordingly, Hodges is not concerned with polishing any portion of the panel, especially only a portion corresponding to a seal area between a cooling system and panel. Other references that have a cooling system, such as Meglio, disclose flat panel portions, and therefore do not provide a curved surface allowing only one portion of the panel to be polished. Accordingly, none of these references provides a panel having only a portion polished. Moreover, none of these references provides any suggestion or motivation to polish one portion of the panel for sealing thereof.

Instead, the Examiner relies on Cawthorne et al to provide both the panel member as well as the suggestion and motivation for polishing one portion of the panel. The Examiner cites to Column 5, lines 39-41 of Cawthorne to support this contention. However, reviewing this reference, it also fails to disclose polishing a portion of a panel. In fact, Cawthorne fails to disclose polishing a panel of any kind whatsoever. Instead, Cawthorne is directed toward polishing a sealing surface on a rock bit to support an O-ring. This does not have anything to do with polished panels whatsoever, especially panels only having a portion that is polished. Accordingly, Cawthorne also fails to disclose a polished panel, being polished at one portion, as well as any teaching or suggestion to polish a panel.

To the Extent that the Examiner submits that Cawthorne teaches contrary to that stated by Applicant, it should be pointed out that Cawthorne is completely non-analogous art to that disclosed and claimed in the present application. "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992); see also MPEP 2141.01(a). Needless to say, the rock bit tool for drilling subterranean formations is not in the field of endeavor of CRT displays. One would not look to mining equipment to find a solution to the problem of CRT sealing and cooling. Accordingly, for the reasons set forth above, Applicant submits that Claim 1 and all claims depending therefrom are now in a condition for allowance.

Claims 5-6 are rejected under 35 USC § 103 over Meglio and Hodges and further in view of U.S. Patent No.4,780,640 (Hasegawa). Also, Claims 7-8 are rejected under 35 USC § 103 over Meglio and Hodges and further in view of U.S. Patent No.6,188,165 (Lee). Lastly, Claims 9-10 are rejected under § 103 over Meglio and Hodges and further in view of U.S. Patent No.4,740,727 (Inaida) and U.S. Patent No. 4,924,244 (Kataoka et al.). For the reasons set forth above, Applicant submits that Claim 1 and all claims depending therefrom are in a condition for allowance.

CONCLUSION

For at least the above reasons, Applicants respectfully submits that the present invention, as claimed, is patentable over the prior art. If the Examiner has any issues which he believes can be expedited by a telephone conference, he is encouraged to telephone the undersigned Representative.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance, and a Notice to that effect is earnestly solicited.

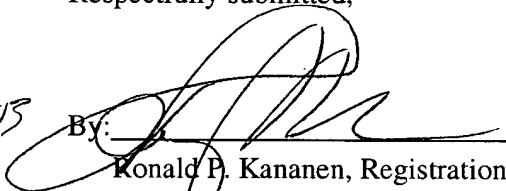
It is believed that any additional fees due with respect to the filing of this paper should be identified in any accompanying transmittal. However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC.

Respectfully submitted,

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MARKED-UP CLAIMS

1. (amended) A projection type cathode ray tube comprising:
a main body comprising a panel on which at least phosphor is provided, the panel being formed in the inwardly curved form with a uniform thickness; and
a cooling system which has a front surface having an opening facing the panel, and is filled with a cooling liquid for cooling the panel so that the cooling system makes contact with the panel through the opening[.];
wherein the panel is mounted on the front surface of the cooling system with a sealing member in between, and only a portion of the panel which contacts the sealing member is polished.
3. (amended) A projection type cathode ray tube as claimed in claim [2] 1, wherein polishing is performed using an abrasive containing cerium oxide.
4. (amended) A projection type cathode ray tube as claimed in claim [2] 1, wherein the peripheral portion of the outer surface of the panel is a substantially planar surface.